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EXAMINER

LAMB, CHRISTOPHER RAY

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 08/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/644,741

Applicant(s)

SUH ET AL.

Examiner

Christopher R. Lamb

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>5/3/05</u> .  | 6) <input type="checkbox"/> Other: ____.                                    |

## **DETAILED ACTION**

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in the Republic of Korea on August 22<sup>nd</sup>, 2002. It is noted, however, that applicant has not filed a certified copy of the 10-2002-0049638 application as required by 35 U.S.C. 119(b).

### ***Drawings***

2. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2-4, 5, 13, and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 2:

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The phrase "the address unit number or unit data being in a state of being scrambled by being logically combined with said at least one playback allowance code scrambled" (lines 4-6) is confusing. It appears to imply that both (a) the address unit number or unit data and (b) the playback allowance code are written on the disc in a scrambled format, but from the specification, it appears that (a) the playback allowance code is not itself scrambled, but is instead used to scramble (b) the address unit number or unit data.

Regarding claim 5:

It recites the limitation "the address unit number or user data" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

The address unit number of user data was defined in claim 2; however, this claim is dependent on claim 1 only.

Regarding claims 13:

It requires "wherein the selected region-based playback allowance code has at least two kinds of codes." There is insufficient antecedent basis for "the selected" code. Also, because the playback allowance code is clearly singular, it is unclear how it can have "at least two kinds of codes."

The Examiner has presumed, from the specification, that the Applicant is attempting to claim the situation where playback is permitted in multiple regions and thus there is more than one playback allowance code recorded on the disc (as in page 6, lines 20-25). However, it is difficult to tell if the claim is really meant to refer to this.

Regarding claim 16:

This is similar to claim 13, except that in this case there is antecedent basis for "the selected" code in the language of the claim it is dependent on (claim 14). However, there is still the problem that "a" code is selected (singular), and in claim 16 "the selected" code abruptly becomes two kinds of codes. The Examiner has presumed that the Applicant is again trying to claim the situation where there are multiple codes.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 5-6, and 10-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ueda et al. (US 6,289,102).

Regarding claim 1:

Ueda discloses a high-density recording medium (abstract: it is high density as described in column 1), comprising:

at least one playback allowance code (abstract: "key information"), which is adapted to determine region-based allowance of playback of data recorded on the recording medium (column 2, lines 28-36), while being recorded in a part of user control data, having a predetermined recording size, recorded on the recording medium ("in the lead-in area.").

Regarding claim 2:

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In Ueda an address unit number or user data is recorded in a procedure of manufacturing the recording medium or recording data on the recording medium, the address unit number or user data being in a state of being scrambled by being logically combined with said at least one playback allowance code scrambled (abstract: the data is scrambled with the key information).

Regarding claim 3:

In Ueda said at least one playback allowance code comprises a code for a playback-allowed region, while the code being recorded with a playback allowance code value used, in a scrambled state, to be logically combined with the address unit number or user data (Ueda discloses that the codes may be used to restrict playback in certain countries: column 2, lines 28-36).

Regarding claim 5:

In Ueda the playback allowance code is used to de-scramble the address unit number or user data when the recording medium is played back (abstract).

Regarding claim 6:

In Ueda the playback allowance code is recorded in a part of the user control data (it is in the lead-in area: abstract).

Regarding claim 10:

Ueda discloses:

A method for reproducing data of a high-density recording medium, comprising the steps of:

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identifying region identification information previously stored in a recording/reproducing apparatus (column 12, lines 50-60: Ueda does not discuss region identification specifically here, but in column 2, lines 35-40, where it is given as one reason why reproduction might be prohibited), and

detecting a region-based playback allowance code, corresponding to the identified region identification information, from user control data recorded on the recording medium (column 12, lines 50-60); and

de-scrambling a scrambled user data read from the recording medium, based on the detected playback allowance code, and performing a reproducing operation (column 11, lines 30-45).

Regarding claim 11:

Ueda discloses:

A method for reproducing data of a high-density recording medium, comprising the steps of:

(A) comparing a region-based playback allowance code from user control data recorded on the recording medium with a predetermined code set in a recording/reproducing apparatus (column 12, lines 50-60; region-based as discussed above); and

(B) determining whether or not to de-scramble a scrambled user data based on the comparing result (column 12, lines 50-60).

Regarding claim 12:

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In Ueda the scrambled user data is de-scrambled only when the region-based playback allowance code is equal to the predetermined code (column 12, lines 50-60).

Regarding claim 13:

In Ueda the selected region-based playback allowance code has at least two kinds of codes (Fig. 3: Ueda has multiple codes and the number indicates which is used).

Regarding claims 14-16:

These are recording claims corresponding to reproducing claims 11-13. Ueda discloses that the necessary codes are recorded on the disk.(column 7, lines 40-55).

7. Claims 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Ueda (these claims have been listed separately because a different embodiment of Ueda has been used to reject them, compared to the claims above).

Regarding claim 7:

A method for reproducing data of a high-density recording medium, comprising the steps of:

(A).identifying region identification information stored in a recording/reproducing apparatus, and detecting a region-based playback allowance code, corresponding to the identified region identification information, from user control data recorded on the recording medium (column 32: step S1400 – in this embodiment the disk key is a region-based playback allowance code. The disc key is region-based because it itself can only be decrypted if the apparatus possesses the correct master code, which is



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stored in the apparatus, and thus can be restricted by region, as in column 2, lines 25-40); and

(B) de-scrambling a scrambled address unit number read from the optical disc, based on the detected playback allowance code, and (column 32: step S1402 – the disk key is used to decrypt the encrypted sector header, which inherently includes address information)

performing a data reproducing operation by referring to the de-scrambled address unit number (column 33, lines 20-25).

Regarding claim 8:

In Ueda the region identification information is intrinsic region identification information for a region where the recording/reproducing apparatus is to be sold and used (again, because the disk key is decoded using a master key stored in the apparatus, it is intrinsically restricted to the region where the apparatus is sold).

Regarding claim 9:

In Ueda the step (B) comprises the step of logically combining the detected playback allowance code with the scrambled address unit number read from the recording medium, thereby de-scrambling the scrambled address unit number into an original address unit number (column 32: step S1402).

8. Claims 1 and 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Yonemitsu et al. (US 5,903,705).

Regarding claim 1, Yonemitsu discloses:

A high-density recording medium, comprising:

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at least one playback allowance code, which is adapted to determine region-based allowance of playback of data recorded on the recording medium (abstract), while being recorded in a part of user control data, having a predetermined recording size, recorded on the recording medium (Fig. 3).

Regarding claim 10, Yonemitsu discloses:

A method for reproducing data of a high-density recording medium (abstract), comprising the steps of:

identifying region identification information previously stored in a recording/reproducing apparatus (abstract), and

detecting a region-based playback allowance code, corresponding to the identified region identification information, from user control data recorded on the recording medium (abstract); and

de-scrambling a scrambled user data read from the recording medium, based on the detected playback allowance code, and performing a reproducing operation (abstract: the data is decoded if the allowance code matches, so it is de-scrambled "based on" the code).

Regarding claim 11:

Yonemitsu discloses:

A method for reproducing data of a high-density recording medium (abstract), comprising the steps of:

(A) comparing a region-based playback allowance code from user control data recorded on the recording medium with a predetermined code set in a recording/reproducing apparatus (abstract); and

(B) determining whether or not to de-scramble a scrambled user data based on the comparing result (abstract).

Regarding claim 12:

In Yonemitsu the scrambled user data is de-scrambled only when the region-based playback allowance code is equal to the predetermined code (abstract).

Regarding claim 13:

In Yonemitsu the selected region-based playback allowance code has at least two kinds of codes (it has a territory code and a time code: abstract).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 4, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda in view of Reed (US 2002/0111993).

Ueda discloses a high-density recording medium as discussed above.

Ueda does not disclose "wherein said at least one playback allowance code comprises a code for a playback-inhibited region, while the code being recorded with an

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optional value other than a playback allowance code value used, in a scrambled state, to be logically combined with the address unit number or user data.”

Reed discloses recording decoy keys on an optical disc (paragraph 74).

It would have been obvious to one of ordinary skill in the art to include in Ueda wherein said at least one playback allowance code comprises a code for a playback-inhibited region, while the code being recorded with an optional value other than a playback allowance code value used, in a scrambled state, to be logically combined with the address unit number or user data (in short, a decoy code).

The motivation would have been to improve the security of the disc.

Regarding claim 17:

Ueda discloses a method of recording data as discussed above in the rejection of similar claims 14-16. Ueda does not disclose recording “non region-based playback allowance codes” on the disc. However, this is taught by Reed (decoy keys being non region-based playback allowance codes) as discussed above.

Regarding claim 18:

Ueda in view of Reed includes at least one playback allowance code (discussed above), and at least one “no playback allowance code” (the decoy codes taught by Reed).

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Morioka et al. (US 6,526,010), Lieberfarb et al. (US 5,488,410).

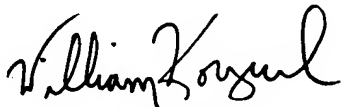
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Lamb whose telephone number is (572) 272-5264. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CRL 8/2/06

  
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